

WE CLAIM:

1. A disk-drive flexure/conductor structure comprising
an elongate flexure body having a distal end including a plurality of conductors
spaced from each other and extending along substantially the entire length of the body, and
5 an electromagnetic transducer mounted on the distal end of the flexure body and held
in dynamic contact with a recording surface of a magnetic recording medium amid
read/write communication with said medium, and wherein each of said conductors has a
thickness which is at least about 13% of the total thickness of the body so that the
conductors function as load bearing beams at least partially supporting the transducer.

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2. A device for storing and retrieving information on a spinning rigid disk comprising:

a transducer composed of a plurality of adjoining solid films including a disk-facing projection, a conductive coil inductively coupled to a magnetically permeable core
5 terminating in a pair of tips encased by said projection for concurrent contact and communication with the disk, and

an elongated arm attached to said transducer, composed of a plurality of adjoining solid layers and having a length, a width and a thickness with said thickness being substantially less than said width and said width being substantially less than said length,
10 said arm including a plurality of conductive ribbons extending lengthwise, separated widthwise and connected to said coil.

3. The device of claim 2, wherein at least one of said tips is exposed adjacent to
15 the disk.

4. The device of claim 2, wherein said conductive ribbons are disposed on a disk-facing portion of said arm.

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5. The device of claim 2, wherein said conductive ribbons are separated from other solid layers of said arm adjacent to said transducer.

5 6. The disk-drive flexure/conductor structure of claim 2, wherein the thickness of the conductors are at least about 20% of the total thickness of the flexure body.

7. The disk-drive flexure/conductor structure of claim 2, wherein the flexure
10 body has a proximal end opposite from the distal end, the flexure body having two lateral edges which taper inward from the proximal end toward the distal end so that the width of the flexure body near the distal end is less than the width of the flexure body near the proximal end.

15 8. The disk-drive flexure/conductor structure of claim 1 further comprising a gimbal mechanism connecting the flexure body to the transducer so that the transducer is permitted to move relative to the flexure body during read/write operation on a magnetic recording medium.

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9. The disk-drive flexure/conductor structure of claim 1, wherein the flexure body has at least one location along its length where the conductors are the sole load-bearing beams in the flexure body.

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10. The disk-drive flexure/conductor structure of claim 9, wherein said location along the length of the flexure body defines a hinge region for permitting controlled movement of the transducer along a Z-axis perpendicular to a recording medium surface.

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11. The disk-drive flexure/conductor structure of claim 9, wherein said location is closer to the proximal end of the flexure body than it is to the distal end of the flexure body.

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12. The disk-drive flexure/conductor structure of claim 1 wherein the flexure body includes at least one stiffening layer adhesively bonded to the conductors.

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13. The disk-drive flexure/conductor structure of claim 10, wherein the flexure body includes stiffening layers adhesively joined to the conductors on opposite sides of the hinge region.